

On Granular Polycondensation and on Polymerization  
in the Production of Ionites

SOV/156-58-2-42/48

is not necessary and the waste decreases to 0,3 - 0,5%. According to temperature, intensity of mixing and the properties of the surface-active substances in the solution, ionites can be obtained as spheres of different size. This shape of ionites has a number of advantages as compared to that of the irregular grains. The problem of the methods of production of such spherical ionites has not been sufficiently elucidated in publications (Ref. 3). The authors made it their object to produce several already known and several new anionites of spherical shape. Final solidification was obtained by an additional heating of the polymer in liquid state in different media: oils, benzene, glycerine, saturated NaCl- and CaCl<sub>2</sub>- solutions and others. The best results were obtained by using transformer oil as solidifying medium. On contacting the oil the polymer drops are covered by an oil film which prevents the coagulation of individual drops and thus the formation of greater aggregations. At a temperature of 60 - 65° and with intensive mechanical stirring

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(propeller mixer 200 rev/min) solidification of the drops was completed after 1 - 1.5 hours; in conclusion further conditions for an optimum quality of the spherical ionites are given. There are 1 figure and 4 references, 3 of which are Soviet.

ASSOCIATION: Kafedra tekhnologii plastmass Moskovskogo khimiko-  
tekhnologicheskogo instituta im. D. I. Mendeleeva (Chair  
for Technology of Plastics of the Moscow Institute of Chemical  
Technology imeni D. I. Mendeleev)

SUBMITTED: October 5, 1957

Card 3/3

S/081/60/000/019/007/012  
A006/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 19, p. 522, # 79369

AUTHORS: Davankov, A. B., Zambrovskaya, Ye. V.

TITLE: The Use of Acid Esters of Dithiocarbonic Acid as a New Type of Ion-Exchanging Material ✓

PERIODICAL: Tr. Mosk. khim.-tekhnol. in-ta im. D. I. Mendeleeva, 1959, No. 29, pp. 72-82

TEXT: The possibility was established of converting water-soluble salts of various acid esters of dithiocarbonic acid (ethyl and butylxanthogenate of potassium, cellulose xanthogenates, polyglycerins, polyvinyl alcohol and its copolymers with malein anhydride) into a non-soluble form by means of adsorption on the "H-O" resin. The authors studied the exchange capacity of ionites obtained under dynamical conditions from  $\text{AgNO}_3$  solutions. Ways were found of concentrating on the aforementioned adsorbents great amounts of silver with the use of reducing agents (19 - 31 mg-equ/g). A synthesis was developed of a condensation MMC (MMS) resin containing sulfohydryl groups (5.76% S). Investigations ✓

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S/081/60/000/019/007/012  
A006/AC01

The Use of Acid Esters of Dithiocarbonic Acid as a New Type of Ion-Exchanging Material

were made of the sorption capacity of the resin (granulated and non-granulated) with respect to  $\text{Ag}^+$  cations at 20 and 60°C and of the possibility of extracting silver out of the column. ✓

Ye. Zambrovskaya

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

3/190/60/002/009/020/023/XX  
B004/B056

53831

2206, 1274, 1370

AUTHORS:

Davankov, A. B., Zambrovskaya, Ye. V.

TITLE:

Synthesis and Application of Polymers With Thiol- and Thione Groups

PERIODICAL:

Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 9, pp. 1330-1334

TEXT: The authors aimed at producing a cation exchanger containing SH- and =S groups and which, besides being used for analytical purposes, may also serve for the separation of metals, whose sulfides are difficultly soluble in water. For the synthesis of such an exchanger-resin, the authors used two methods. 1) The CAT(SDT) resin was obtained by the treatment of a chloromethylated copolymer of styrene and 2-4% divinyl benzene with thiourea. The SDT resin contained 11.3 - 15.48% sulfur, and was hydrolyzed by means of 5% NaOH. The yield was 70-85%, referred to the initial chloromethylated copolymer. The sorption properties of this resin are only little influenced by the pH. The dynamic exchange capacity, measured by means of 0.1 N AgNO<sub>3</sub>, amounted to 2.7 - 2.8 mg-equiv/g. The regeneration was carried

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85751

Synthesis and Application of Polymers With  
Thiol- and Thione Groups

S/190/60/002/009/020/023/XX  
B004/B056

out by reducing the silver with  $\text{NaHSO}_3$  or  $\text{Na}_2\text{SO}_3$ . When  $\text{NaHSO}_3$  was used, no decrease of the absorption capacity occurred. In eight cycles of sorption and regeneration, 238.7% Ag, calculated per weight of the resin, and/or 22.1% mg-equiv/g referred to metal were adsorbed on the cation exchanger. 2) The  $\text{CHK(SNK)}$  resin was obtained from a polymer containing amino styrene and 2% divinyl benzene by means of diazotizing with an excess of  $\text{HNO}_2$  at  $5^\circ\text{C}$  and treating the diazo compound with potassium ethylxanthogenate. The sulfur content of the resin was 5.16 - 6.10%. The dynamic exchange capacity determined by means of  $\text{AgNO}_3$  was 2.13 mg-equiv/g. Also in the case of this resin,  $\text{NaHSO}_3$  proved to be more suited for regeneration, because the capacity did not decrease to such an extent as when using the  $\text{Na}_2\text{SO}_3$ . The authors further investigated  $\text{TH(TN)}$  resin synthesized by A. B. Davaňkov and V. M. Laufer in the katedra plastmass (Chair of Plastics) of their institute. TN is a polycondensation product of thiourea, melamine, and formaldehyde. The exchange capacity, which was determined according to the above method, was 2.70 - 4.44 mg-equiv/g. There are 3 tables and 6 references: 1 Soviet, 2 US, and 3 British.

Card 2/3

Synthesis and Application of Polymers With  
Thiol- and Thione Groups

3/190/60/002/003/020/023/XX  
B004/B056

ASSOCIATION: Khimiko-tekhnologicheskii institut im. D. I. Mendeleeva  
(Institute of Chemical Technology imeni D. I. Mendeleev)

SUBMITTED: March 29, 1960

Card 3/3

X

DAVANKOV, A.B.; ZAMBROVSKAYA, Ye.V.

Extracting silver by ionites modified by the adsorption of xanthic acid. Izv. vys. ucheb. zav.; tsvet. met. 2 no.3:82-88 '59.  
(MIRA 12:9)

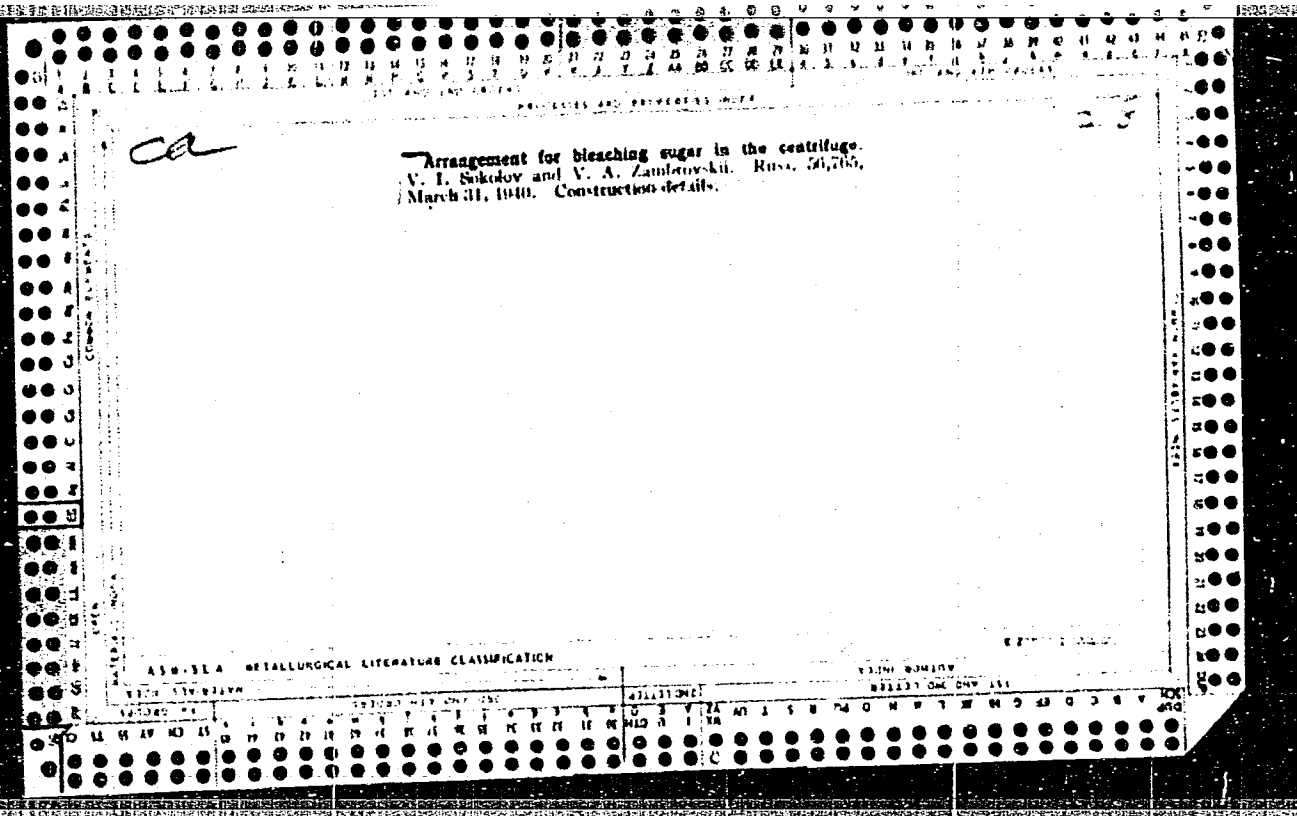
1. Moskovskiy khimiko-tekhnologicheskii institut, Kafedra tekhnologii plastmas.

(Silver) (Ion exchange)



1ST AND 2ND CODES																										3RD AND 4TH CODES																									
COMMON ELEMENTS																										METALLURGICAL LITERATURE CLASSIFICATION																									
<p>ca</p> <p>Whitening sugar in the centrifuge by means of water only, without steam. V. A. Zambrovskii. <i>Sakhar</i> 10, No. 3, 10-12(1938); <i>Khimik i Industriia</i> 41, 980. —The yield of sugar obtained by this method is the same as that obtained by the usual method provided the amt. of water used in the former does not exceed the sum of water + condensed steam in the latter. There is very little difference in the color of the sugar obtained. The color of sugar obtained with water alone can be improved by prolonging admission of water and distributing it uniformly throughout the sugar. Sugar dried with water alone requires stronger drying, but the time required for the whole operation is 50% less.</p> <p>A. Poinneau-Couture</p>																										<p>28</p>																									

LIST AND TWO CODES		PROCESSES AND PROPERTIES INDEX	
<p>Increasing the capacity of centrifugals for white sugar and lower grades. V. A. Zambrovskii. <i>Trans. Central Sci. Research Inst. Sugar Ind. (U.S.S.R.)</i> No. 21, <i>Tech. and Chem. of Sugar Manuf.</i>, 78-107 (1939).—Practical suggestions for increasing the capacity of centrifugals based on exptl. work are given. V. E. Baikov</p>			
<p>ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>			
SICHI SYMBOLISM		SICHI SYMBOLISM	
SICHI SYMBOLISM		SICHI SYMBOLISM	



1ST AND 2ND CROSS										3RD AND 4TH CROSS									
PROCESSES AND PROPERTIES INDEX																			
<div style="display: flex; justify-content: space-between;"> <span>W</span> <span>28</span> </div> <p><b>Production of pectin adhesive from beet pulp. V. A.</b></p> <p>Zamiatovskii. <i>Sakharosya Press</i>, 20, No. 6, 17(1947).— Fresh pulp from the diffusion battery is washed with warm water to remove residual sugar. After dewatering, the pulp is placed in autoclaves and is heated with steam at 120° for 1 hr.; the pectins become sol. in the form of hydro-pectins, which have adhesive properties. The mass is pressed and the liquid contg. 2-3% of dr. substance, after filtration, is evapd. to 50% solids and lurreled. It could be dried in a powder. The beet pulp after being pressed is used for <i>cattle feed</i>. The pectin adhesives can compete favorably, owing to the low cost and good quality, with casein or starch adhesives. V. E. Balkow</p>																			
<div style="display: flex; justify-content: space-between;"> <span>450-55A METALLURGICAL LITERATURE CLASSIFICATION</span> <span>6-67-10-10-10-10</span> </div>																			
FROM SYNONYM										FROM SYNONYM									
SYNONYM										SYNONYM									
SYNONYM										SYNONYM									

1

CA

Self discharging centrifugal. V. A. Zambrovskii.  
Sakharovs Prom. 23, No. 12, 23-6(1945). Modifications  
and methods of operating are described. V. B. Baikov

A50-55A METALLURGICAL LITERATURE CLASSIFICATION

ZAMBROVSKIY, V.A. [Zambrovs'kiy, V.A.], inzh.

All-purpose filter operating under pressure. Khar.prom. no.3:33  
Jl-S '62. (MIRA 15:8)

(Filters and filtration)  
(Sugar manufacture--Equipment and supplies)

ZAMBROVSKIY, V.A. [Zambrovs'kyi, V.A.]

Filtration of sugar juices with disk filters. Khar.prom.  
no.2:40-48 Ap-Je '62. (MIRA #549)-

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy  
promyshlennosti.

(Ukraine--Sugar manufacture)  
(Filters and filtration)

ZAMBROVSKIY, V.A [Zambrovs'kiy, V.A.]

Use of hydrocyclones in the sugar industry. Khar.prom. no.4:  
17-23 O-D '62. (MIRA 16:1)

(Separators (Machines))  
(Sugar industry—Equipment and supplies)



ZAMEROVSKIY, V.A.

More efficient methods for mud discarding on disk-type filters.  
Sakh.prom. 36 no.4:23-27 Ap '62. (MIRA 15:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharnoy  
promyshlennosti.  
(Sugar manufacture)

ZAMBROVSKIY, Vladimir Abramovich [Zambrovs'kiy, V.A.], starshiy nauchnyy  
sootr.; VLADICHENKO, Ye.F. [Vladychenko, E.F.], inzh., retsenzent;  
KORSAK, Yu.Ye., red. izd-va; MATUSEVICH, S.M. [Matusevych, S.M.],  
tekhn. red.

[Disk filters in the sugar industry] Dyskovi fil'try v tsukrovii  
promyslovosti. Kyiv, Derzhstekhyvdav URSR, 1962. 88 p.  
(MIRA 15:12)

(Sugar industry--Equipment and supplies)  
(Filters and filtration)

ZAMBROVSKIY, V.A.

Procedure for an efficient discarding of mud on disk-type filters.  
Sakhr.prom. 35 no.6:18-23 Jo '61. (MIRA 14:6)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharney  
promyshlennosti.

(Sugar manufacture)  
(Filters and filtration)

C. ZAMBROVSKIY, V.A.;

Disk filters in the sugar industry. Sakh. prom. 35 no. 1:44-  
47 Ja '61. (MIRA 14:1)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharney  
promyshlennosti. (Sugar manufacture) (Filters and filtration)

ZAMBROVSKIY, V.A.

Operation of vacuum files. Sakh.prom. 32 no.9:12-16 S '58.  
(MIRA 11:11)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharnoy  
promyshlennosti.

(Sugar machinery) (Filters and filtration)

ZAMBOVSKIY, V.A.

Fives-Lille filtration unit. Sakh. prom. 33 no.1:30-36 Ja '59.  
(MIRA 12:1)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharnoy promyshlennosti.  
(Sugar industry--Equipment and supplies)

ZAMBROVSKIY, V.A.

Using hydrocyclones in the manufacture of sugar. Sakh. prom. 32  
no. 7:12-17 Jy '58. (MIRA 11:8)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharnoy  
promyshlennosti.

(Sugar industry--Equipment and supplies)  
(Separators(Machines))

ZAMBROVSKIY, V.A.

Production norms and labor expenditure for filter presses for first  
and second carbonation juices. Sakh. prom. 32 no.2:45-51 P '58.  
(MIRA 11:3)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharnoy  
promyshlennosti.  
(Sugar manufacture)



Methods for purifying waste waters. R. M. Zamek-hoffel. *J. Chem. Ind. (U. S. S. R.)* 18, No. 3, 33-5 (1944). PhOH and cresol are best removed from waste-  
~~water~~  $H_2O$  by passing  $Cl_2$  into it to form the trichloro deriva-  
which are then oxidized to resins and ppd. These are  
filtered and used in prep. plastics, and the filtrate is neu-  
tralized with soda. Acs., acetates and bivalyl are best  
removed with active C, which can be regenerated by pass-  
ing an inert gas over it. H. M. Leicester

ZAMBROVSKIY, V.A.

Establishing production standards for centrifugal operators. Sakh.  
prom.30 no.9:37-43 S '56. (MIRA 10:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy  
promyshlennosti. (Sugar machinery--Production standards)

ZAMBROVSKIY, V.A.

Utilizing caprone cloth for filtration. Sakh.prom.30 no.11:24-26 M  
'56. (MLRA 10:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharney pro-  
myshlennosti.

(Filters and filtration)

(Sugar industry--Equipment and supplies)

KARTASHOV, A.K.; ZAMBROVSKIY, V.A.

Improvement of the standard multistage settling tank. Sakh.prom.30  
no.6:24-27 Jo '56. (MIRA 9:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharnoy promy-  
shlennosti.  
(Sugar industry--Equipment and supplies)

ZAMBROVSKIY, V. A.

Centrifugal separators for concentration of first-carbonation juices. V. A. Zambrovskii, I. B. Movlik, and G. A. Saburov. *Sukhaya Prom.* 30, No. 1, 14-16(1960).  
 At present the juices from the first carbonation are settled in continuous clarifiers. Approx. 25% by vol. of the settlings is filtered on a revolving vacuum filter. This lengthy procedure can be shortened by using a centrifugal separator, construction of which is described. These separators are satisfactory in sept. of unfiltered carbonation juices, and one separator can process 12 cu. m. of juice/hr., producing mud of 20-26° Brix. However, clarified juice from centrifugal separators contained 0.40% of turbidity on the wt. of juice in comparison with 0.33% from continuous clarifiers. This increased turbidity reduces filterability of juices. The juices from centrifugal separators do not show increased color or loss of heat. The av. cycle of centrifugal separator is 8 hrs., while 2 hrs. is required for cleaning and reassembling by two men. Therefore, 25% more capacity in the centrifugal separator is required. For a battery of 6 centrifugal separators three men per shift are needed. At present centrifugal separators cannot compete with continuous clarifiers, but further research work is in progress.  
 V. B. Baikov

ZAMBROVSKIY, V.A.; KOVLIK, I.Ye.; SABURDO, G.A.

Centrifugal separators for thickening first carbonation juice.  
Sakh.prom.30 no.1:14-16 Ja '56. (MLRA 9:6)  
(Sugar machinery)

YAPASKURT, V.V.; YEPISHIN, A.S.; SHAKIN, A.N.; SILIN, P.M.; ZHIDKOV, A.A.;  
KHELEMSKIY, M.Z.; SHEMYAKIN, P.H.; NOVIKOV, V.A.; POPOV, V.D.; BENIN,  
G.S.; NAYDENOV, A.K.; KUREATOVA, V.S.; KARTASHOV, A.K.; YARMOLINSKIY,  
A.K.; ZIBOROV, D.K.; VAYSMAN, M.L.; ZAMBROVSKIY, V.A.; SVYATENKO, M.M.

IULii Markovich Zhvirblianskii; obituary. Sakh.prom.29 no.6:48 '55.  
(Zhvirblianskii, IULii Markovich, 1894-1955) (MIRA 9:1)

ZAMBROVSKIY, V.A.

Mill experiment for determining the rate of juice filtration in  
filter presses. Sakh.prom. 29 no.2:18-19'55. (MLRA 8:6)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharnoy  
promyshlennosti.

(Sugar industry)



ZAMBROVSKII, V. A.

Factory experiment for determination of the rate of filtra-  
tion of juices on filter presses. V. A. Zambrovskii. Suk-  
hodnyaya Prom. 29, No. 2, 18 (1961). -- The filterability of  
first- and second-press juices is much superior when the unfiltered  
carbonated juice is returned to predefecation. The ortho-  
mum rate of filtration of first carbonated juices previously  
predefecated is 4 l. per sq. m. per min. and it can be increased  
to 4.5 l. if check filtration is available. V. B. Baikov.

PA  
QW

Plates with hydraulic windows of base designed by V. L.  
Mazuruk. ~~See also Mazuruk, V. L. 1963. 13~~

ZAMBROVSKIY, V.A.

Crystallizer made by the Smela Machine Works. Sakh.prom.29 no.5:  
32-35 '55. (MLBA 8:11)

1. Tsentral'nyy Nauchno-issledovatel'skiy institut sakharnoy pro-  
myshlennosti

(Sugar machinery)

ZAMBROVSKIY, V. A.

①  
Leading method for work on vacuum filter installations.  
V. A. Zambrovskiy. *Sakharnaya Prom.* 27, No. 10, 9-13  
(1953).—For best results, coordination of clarifiers and  
vacuum filters is essential. Prefiltration with unfiltered  
carbonated juice for 4 min., defecation for a period of 8 min.,  
and first carbonation for 10 min. is required with a uni-  
form supply of milk of lime to the defecator. Alky. of  
first carbonation must be const. and preheating of juices  
before settling must be to 90°. For high flow rate the  
filter cake should not exceed 6-8 mm. For sweetening-off  
the cake only condensate water should be used. To pre-  
vent cracking of cake, a piece of filter cloth, loose at one  
end is dragged over the drum. The filter cloth used for  
filtration should serve at least 30 days. It should be kept  
clean and toward the end of its life should be washed with  
HCl soln. without being removed from the filter.

V. E. Baikov

1. ZAMBROWSKIY, V. A.
2. USSR (600)
4. Filters and Filtration
7. Using cotton fabric instead of filter-press cloth. Sakh. prom. 26, no. 10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, January, 1953, Unclassified.

ZAMBROVSKIY, V.A.

Filter with V.L.Marianchik's system of hydraulic removal of precipitated impurities. Sakh.prom. 28 no.2:21-24 '54. (MIRA 7:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharnoy promyshlennosti.

(Sugar machinery)

ZAMBROVSKIY, V. A.

Technology

TSentrifugi i fugovka utfelet (Centrifuges and the  
centrafugation of massecuite). Moskva, Pishchepromizdat, 1951.

Monthly List of Russian Accessions, Library of Congress,  
November, 1952. UNCLASSIFIED.

ZAMBROVSKIY, V.A.

Progressive method of work on vacuum filtration equipment. Sakh.prom. 27  
no.10:9-13 '53. (MLRA 6:11)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakhar'noy promyshlennosti.  
(Sugar industry) (Filters and filtration)



ZASLAVSKIY, B.L. ZAMBROVSKIY, V.A.

Pectin

Gelatin forming pectin from the press. Reviewed by B.L. Zaslavskiy, V.A. Zambrovskiy.  
Sakh, prom. 26 No. 1 1952

Monthly List of Russian Accessions, Library of Congress, April 1952 Unclassified

ZAMBROVSKIY, V.A.

Using hydrocyclones in the lime section of the bobrovitsa  
factory. Sakh.prom. 33 no.9:15-20 S '59. (MIRA 13:1)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharney  
promyshlennosti.  
(Bobrovitsa--Sugar machinery)

ASKANAS, Zdzislaw; MALANOWICZ, Wiera; MAZURCZAK, Jerzy; TENENBAUM, Barbara;  
ZAMBROWICZ, Krystyna

Evaluation of the activity of heparinoids in vivo and in vitro.  
Pol. tyg. lek. 20 no.33:1237-1240 16 Ag '65.

1. Z IV Kliniki Chorob Wewnętrznych AM w Warszawie (Kierownik:  
prof. dr. med. Zdzislaw Askanas).

ZAMBROWICZ, Krystyna

Attempted determination of beta-lipoproteins using the nephelometric method. Pol. arch. med. wewnet. 35 no.3:383-391 '65.

1. Z IV Kliniki Chorob Wewnętrznych Akademii Medycznej w Warszawie i Centralnej Przychodni Chorob Układu Krążenia (Kierownik: prof. dr. med. Z. Askanas).

ACC NR: AP6033477 (A, N) SOURCE CODE: UR/0413/66/000/018/0071/0072

INVENTOR: Brodovskiy, V. N.; Zambrzhitskiy, A. A.; Kuznetsov, Yu. A.; Rybkin, Yu. P.

ORG: None

TITLE: A controllable noncontact reversible DC drive. Class 21, No. 186019

SOURCE: Izobret prom obraz tov zn, no. 18, 1966, 71-72

TOPIC TAGS: electric motor, transistorized circuit, direct current

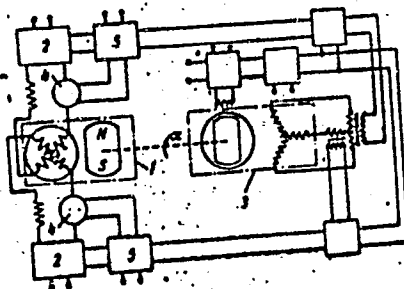
ABSTRACT: This Author's Certificate introduces: 1. A controllable noncontact reversible DC drive consisting of a synchronous motor with power supply from transistorized transducer amplifiers connected in a bridge circuit and a position indicator mounted on a single shaft with the motor and controlling transistorized transducer amplifiers. The power indices are improved by stator current control. Current feedback in the circuit of each phase of the motor is achieved by using a current converter consisting of four individual transformers. 2. A modification of this drive in which the transducer amplifiers are made to operate in switching conditions by connecting the primaries of the four transformers in the power circuits of the transducers and connecting the secondaries in a comparison circuit based on two amplification stages with positive feedback. 3. A modification of this drive in which losses are reduced in the transistorized transducer amplifier by connecting diodes in the emitter circuits of the transistors with the secondaries of the two control transformers between the positive

Card 1/2

UDC: 621.313.292-83

ACC NR: AP6033477

terminal of the diodes and the base of the transistors. The primary windings of these transformers are connected to the comparison circuit. Each of the transformers has two secondary windings connected in opposing arms of the bridge.



1--synchronous motor; 2--transistorized transducer amplifiers; 3--position indicator;  
4--current converter; 5--comparison circuit

SUB CODE: 09/ SUBM DATE: 22May63

Card 2/2

ZAMBRZHITSKIY, I. A.

5219. Tsitoarkhitektonika i nevrochnoye stroeniye verkhney limbicheskoy oblasti v sravnitel'nom ryadu mlekopitayushchikh. M., 1954. 7 s. 20 sm. (1-y Mosk. Ordена Lenina Med. In-t). 100 Ekz. B. Ts. - (54-57525)

SO: Knizhnaya Letopis', Vol. 1, 1955

ZAMBRZHITSKIY, I. A.

SARKISOV, Semen Aleksandrovich; FILIMONOVA, I.N., redaktor; KONONOVA, Ye.P., redaktor; PRIGOBRAZHENSKAYA, N.S., redaktor; KUKUYEVA, L.A., redaktor; ZAMBRZHITSKIY, I.A., redaktor; GABERLAND, M.I., tekhnicheskii redaktor.

[Atlas of the cyto-architectonics of the human cerebral cortex]  
Atlas tsitoarkhitektoniki kory bol'shogo mozga cheloveka. Pod  
red. S.A.Sarkisova, i dr. Moskva, Gos.izd-vo meditsinskoi lit-ry,  
1955. 276 p.--- Supplement, 203 plates. (MLRA 9:1)

1. Akademiya meditsinskikh nauk SSSR. Institut mozga.  
(CEREBRAL CORTEX)



ZAMERZHITSKIY, I. A.

"Cytoarchitectonic and Neuronic Structure of the Upper Limbic Area in Comparison with a Number of Mammals." Cand Med Sci, First Moscow Order of Lenin Medical Inst, Moscow, 1954. (KL, No 4, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

ZAMBRZHITSKIY, I.A.

"Amyotropic lateral sclerosis" by O.A. Khondkarian. Reviewed by  
I.A. Zambrzhitskii. Zhur. nevr. i psikh 59 no.3:373-374 '59. (MIRA 12:4)  
(NERVOUS SYSTEM--DISEASES)  
(KHONDKARIAN, O.A.)

ZAMBRZHITSKIY, I.A.

Certain symptoms of the affection of the limbic region of the cerebral cortex in man according to experimental and morphological data [with summary in French]. Zhur.nevr. i psikh. 58 no.8:934-943 '58 (MIRA 11:9)

1. Laboratoriya patologii nervnoy sistemy (zav. L.A. Kukuyev)  
Instituta mozga AMN SSSR (dir. - prof. S.A. Sarkisov), Moskva.  
(CEREBRAL CORTEX, dis.

limbic lesion, exper. & morphol. basis of symptomatol.  
in humans (Rus))

ZAMBRZHITSKIY, I.A.

Characteristics of neurons of the limbic area and their comparison with neurons of other regions in the neocortex in certain mammals [with summary in English]. Arkh.anat.gist. 1 embr. 35 no.2:39-46 (MIRA 11:5)  
Mr-Apr '58

1. Laboratoriya neyrogistologii (zav. - prof. G.I. Polyakov)  
Instituta mozga AMN SSSR. Moskva, B-120, per. Obukha, 5, Institut mozga AMN SSSR.

(CEREBRAL CORTEX, anatomy & histology  
neurons of limb area & differentiation from other areas  
(Rus))

ZAMBRZHITSKIY, I.A.

"Contemporary problems in the treatment of nervous diseases"; a collection of articles of the Department of Neuropathology of the Gorkiy Medical Institute. Reviewed by I.A. Zambrzhitskii. Zhur. nerv. i psikh., 59 no.12:1512-1513 '59. (MIRA 13:4)  
(NERVOUS SYSTEM--DISEASES)

ZAMBRZHITSKIY, I.A. (Moskva, B-120, per. Obukha, Institut mozga AMN SSSR)

Cytoarchitectonics and the neuronie structure of the limbic region  
in some mammals. Arkh.anat.gist. i embr. 33 no.4:41-48 0-11 '56.

(MLHA 10:4)

1. Iz laboratorii nevrologologii (zaveduyushchiy - professor G.I.  
Polyakov) Instituta mozga AMN SSSR (direktor - professor S.A.Sarkisov)  
(CEREBRAL CORTEX, anat. and histol.  
neuron structure of limbic region)

ZAMBRZHITSKIY, I.A.

Comparative characteristics of the electrocardiogram in the case of focal softening in the bed of the anterior and median cerebral arteries in man. Zhur.nevr.i psikh 60 no.8:940-946 '60. (MIRA 13:9)

1. Laboratoriya patologii nervnoy sistemy (zav. - doktor med.nauk L.A. Kukuyev), Nauchno-issledovatel'skiy institut mozga (direktor - prof. S.A. Sarkisov) AMN SSSR, Moskva.  
(BRAIN—DISEASES) (ELECTROCARDIOGRAPHY)

ZAMERZHITSKIY, I.A.

Modification of Nauta's method. Biul. eksp. biol. i med. 55 no.4:  
119-121 Ap '63. (MIRA 17:10)

1. Iz laboratorii nevrogistologii (zav. prof. G.I. Polyakov) Instituta  
mozga (dir. - deystvitel'nyy chlen AMN SSSR S.A. Sarkisov) AMN SSSR,  
Moskva.



ZAMBRZYCKI, W.

"Hygiene at the production and trade of frozen foods" by Teodor  
Krebes. Reviewed by W. Zambrzycki. Przem spoz 16 no.4:63-64 Ap '62

ZAMBRZYCKI, W.

Some problems of cold storage in Poland in the plan for the years 1961-65.  
p.311

PRZEMYSŁ SPOŻYWCZY. (Stowarzyszenie Naukowo-Techniczne Inżynierów i Techników  
Przemysłu Spożywczego) Warszawa, Poland  
Vol.13, no.8, 1959

Monthly list of East European Accession (EEAI) LC, Vol.9, no.1, Jan. 1960

Uncl.

ZAMBRZYCKI, Wladyslaw

A current aspect of the basic problems of refrigerating  
engineering. Przegl techn no.41:9-10 12 0 '60.

ZAMBRZYCKI, W

POLAND / Chemical Technology. Chemical Products and H-13  
Their Application. Ceramics. Glass. Bind-  
ing Materials. Concrete.

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 2182.

Author : Zambrzycki, W.

Inst : ~~Not given.~~

Title : Dry-Ice and the Possibility of Its Substitution  
by Liquid Carbon Dioxide.

Orig Pub: Przem. chem., 1957, 13, No 4, 235-237.

Abstract: A correlation between the production and consumption of liquid carbon dioxide and Dry-Ice, the properties and fields of its application as well as advantages of Dry-Ice are examined. The method for simultaneous application in the food industry of Dry-Ice and liquid carbon dioxide was developed. -- S. Yavorovskaya.

Card 1/1

ZAMERZYCKI, W.

Basic problems in refrigeration. p. 204 PRZEGLAD TECHNICZNY (Naczelna Organizacja Techniczna) Warszawa. Vol. 76, no. 6, June 1955

SOURCE: East European Accessions List, (EEAL), Library of Congress, Vol. 4, no. 12, December 1955

ZAMBRZYCKI, W.

ZAMBRZYCKI W. Principal problems of cold storage in the 5-Year Plan. p.15.  
GOSPODARKA MIESNA. Warszawa, Poland. Vol. 8, No. 3, Mar. 1956

SOURCE: East European Accessions List (EEAL) LC Vol. 5, No. 6, June 1956

KANDZIORA, Stanislaw; PASLAWSKA-PFUS, Janina; ZAMBRZYCKI, Zdzislaw

Influence of the smallpox vaccination on the course of tuberculosis in adolescents and adults treated in a tuberculosis dispensary. Gruzlica 33 no.7:581-585 J1 '65.

1. Z Poradni Wzorcowej przy Wojewodzkiej Przychodni Przeciwgruzliczej we Wroclawiu (Dyrektor: dr. W. Batycki).

ZAMBURSKIY, I.V., Inzhener.

~~Sectional~~ stamping of large-size machine parts. Mashinostroitel'  
no.3:9-14 Mr '57. (MIRA 10:5)  
(Dies (Metalworking) (Power presses))



L 07962-67 EWT(m) IJP(c)

ACC NR: AP6032485

SOURCE CODE: UR/0413/66/000/017/0017/0017

INVENTOR: Zamchalkin, V. P.

34  
B

ORG: none

TITLE: Machine for obtaining high pressures for evaporation of liquefied gas.  
Class 7, No. 185330

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966,  
17

TOPIC TAGS: high pressure, evaporation, gas, die, valve, liquefied gas,  
stamping machine

ABSTRACT: An Author Certificate has been issued describing a machine for obtaining high pressures during evaporation of compressed gas used for stamping machines. The machine has a chamber above the die block and a container with the compressed gas connected with the chamber through a distributor valve. To increase the power capacity of the machine, the inside cavity of the chamber is cylindrical, with its end turned toward the die block, becoming a truncated cone in the upper section. It is covered by the distributor valve. To use the machine for volume

Card 1/2

UDC: 621.983.044.3

L 07962-67

ACC NR: AP6032485

stamping, the die block is punch-shaped and moves in the controlling sleeve, mounted on a moving spring crossarm, while the die is mounted on a screw jack (see Fig. 1). Orig. art. has: 1 figure. [Translation]

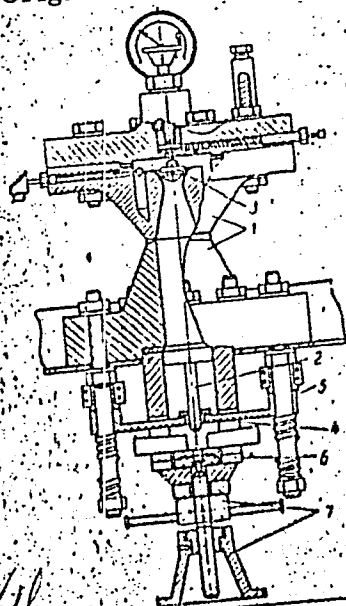


Fig. 1. Machine for obtaining high pressures during evaporation of liquefied gas  
1—Chamber; 2—punch;  
3—distributor valve; 4—controlling sleeve; 5—crossarm;  
6—die; 7—jack.

Card 2/2

SUB CODE: 13/SUBM DATE: 15Oct63/

L 09256-67 EMT(d)/EMP(v)/EMP(k)/EMP(h)/EMP(1)  
 ACC NR: AP6029952 (A, N) SOURCE CODE: UR/0413/66/000/015/0129/0130  
 36

INVENTORS: Zagorodnikov, A. Ya.; Chernyanskiy, P. M.; Yermakov, Yu. M.; Zamchalov, Yu. P.; Shaumyan, G. A.

ORG: none

TITLE: A method for taking a finish cut in producing bodies of revolution. Class 49, No. 184580 [announced by Moscow Higher Technical School of the Order of Lenin and the Order of the Workers' Red Banner imeni N. E. Bauman (Moskovskoye ordena Lenina i ordena Trudovogo Krasnogo Znameni vysshoye tekhnicheskoye uchilishche)]

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 129-130

TOPIC TAGS: metalworking, metalworking machine accessory, machine tool, metal cutting machine tool, body of revolution

ABSTRACT: This Author Certificate presents a method for taking a finish cut in producing bodies of revolution being simultaneously turned (see Fig. 1). To increase the efficiency and to improve the quality of surface, the finish cut is taken with a tool bit fed in the radial and the tangential directions in respect to the product. The tool bit is provided with two cutting blades, one of which is held at an angle to the axis of the product and is fed gradually into the contact with the product at the removal zone of the outer layer. The other blade is held parallel to the axis

UDC: 621.941.1:08

Card 1/2

L 09256-67

ACC NR: AP6029952

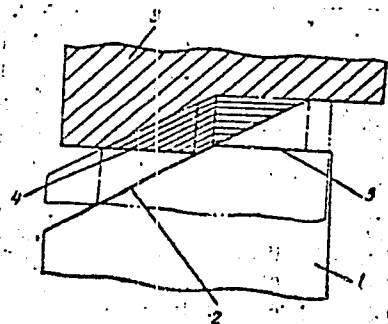


Fig. 1. 1 - tool bit; 2 - first cutting blade; 3 - product; 4 - zone of outer layer removal; 5 - second cutting blade

of the product and is ground to fit that region of the body of revolution which is being cut by this blade. It is this second blade which produces the finish cut on the product. Orig. art. has: 1 figure.

SUB CODE: 13/

SUBM DATE: 17Oct64

ZAMCHALOVA, YE. A.  
USSR/Nuclear Physics - Fission

FD-2210

Card 1/1 Pub. 146-15/25

Author : Gramenitskiy, I. M.; Zamchalova, Ye. A.; Podgoretskiy, M. L.; Tret'yakova, M. I.; and Shcherbakova, M. N.;

Title : Nuclear fissions connected with heavy unstable particles

Periodical : Zhur. eksp. i teor. fiz. 28, 616-617, May 1955

Abstract : The authors remark that, by means of the method of thick-layered photo-emulsions, nuclear physicists have up to the present time found more than 100 nuclear fissions in which hyperons (charged hyperons  $\Sigma^+$  and  $\Lambda^0$  particles) and heavy mesons with mass about 1000 me (K and tau mesons) are produced; also observed are about 30 secondary nuclear fissions caused by nuclear capture of residual negative heavy mesons. In this short note the authors briefly expound certain results of a statistical analysis of these fissions. Seven references, all non-USSR.

Institution : Physics Institute im. P. N. Lebedev, Academy of Sciences USSR

Submitted : February 8, 1955

FD-2879

USSR/Nuclear Physics - Nuclear capture of mesons

Card 1/2

Pub. 146 - 16/26

Author

: Zamchalova, Ye. A.; Karpova, V. I.; Tret'yakova, M. I.

Title

: Nuclear capture of negative heavy meson

Periodical

: Zhur. eksp. i teor. fiz., 29, August 1955, 245

Abstract

: In type-P photoplates with emulsion thickness 300 microns irradiated in the stratosphere, the authors found a case where the visible flight path of one particle (photograph in the original) amounts to as much as 495 microns. According to a measurement of ionization and scattering along the trace, the photograph shows clearly that the particle was stopped at a certain point A from which proceed two tracks: one gray one and one very short black one about 1 micron. The presence of the short black track testifies to the nuclear capture of a primary particle which thus can be either a negative pi-meson or a heavier negative particle. Another particle exited from the emulsion after traversing a path of 674 microns, its ionization amounting to  $3.2 \pm 0.3$  of minimum ionization; hence it follows that the first mentioned particle is heavier than a pi-meson, since if one even assumes the second particle to be a proton then its energy must be about 200 Mev. A proton of such energy cannot be created during nuclear capture

Card 2/2

FD-2879

of a pi-meson. The mass of the second particle turns out to be  $350 \pm 200 \text{ Me}$ ; therefore it must be a pi-meson, and hence its energy is about 30 Mev. Similarly, the mass of the first particle must be between pi-meson and proton, all of which indicates nuclear capture of the stopped negative heavy meson. Thanks I. M. Gramenitskiy and M. I. Podgoretskiy.

Institution : Physics Institute im. P. N. Lebedev, Academy of Sciences USSR

Submitted : April 18, 1955

ZAMCHALOVA, Ye. A.

USSR/Nuclear Physics - Elementary Particles.

C-3

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8648  
 Author : Gramenitskiy, I.M., Zamchalova, Ye.A., Podgoretskiy, M.I.  
 Inst : Tret'yakova, M.I., Shcherbakova, M.N.  
 Title : Two  $\tau$ -Mesons Detected in Photographic Emulsions.  
 Orig Pub : Zh. eksperiment. i teor. fiziki, 1956, 30, No 5, 967-969.

Abstract : A description of two decays of  $\tau$ -mesons, detected in a type R photo emulsion (450 microns), exposed at an altitude of 27 km. In one case all three pions terminate their range within the emulsion pile, and with this one of the secondary pions has a small energy (9.5 0.2 Mev). This, according to Dalitz, is evidence of the assumption that the  $\tau$  and  $\tau^*$  are different particles, and not different types of decay of the same particle.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963720004-9

Card 1/1

Physics Inst. in P. N. Lebedev.



ZAMCHALOVA, YE. A.

C-3

USSR/Nuclear Physics - Elementary Particles.

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8641

Author : Varfolomeyev, A.A., Gerasimova, R.I., Zamchalova, Ye.A.,  
Podgoretskiy, M.I., Shcherbakova, M.N.

Inst : Academy of Sciences, USSR.

Title : Energy Spectrum of Negative Pions, Formed by Cosmic Rays  
in a Photo Emulsion.

Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 30, No 6, 1164-1166.

Abstract : The authors give the energy spectra obtained for 195 positive and 328 negative pions, generated in the R-5 emulsion (emulsions 330 and 450 macrons thick, 10 cm in diameter), exposed to cosmic rays in the stratosphere. Corrections are made to the obtained data to take into account the finite dimensions of the emulsion blocks.. The author believes it possible that in the negative pion spectrum, in the range of 10 -- 30 Mev, there is a small maximum which in their opinion can be interpreted as the decay of  $\Delta^0$

Card 1/2

Card 2/2

ZAMČALOVA E.A.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1769  
AUTHOR AZIMOV, S.A., GULJAMOV, U.G., ZAMČALOVA, E.A., NIZAMENDINOVA, M.  
PODGORECHIJ, M.I., JULDASEV, A.  
TITLE The Investigation of  $\sigma$ -Stars Produced by Negative Pions.  
PERIODICAL Žurn. eksp. i teor. fis., 31, fasc. 5, 756-761 (1956)  
Issued: 1 / 1957

These  $\sigma$ -stars were produced by negative pions which had come to a standstill in an emulsion chamber. This emulsion chamber consists of a large number of layers without carrier and permits the exact measuring of the energy of the secondary particles by determination of the range of ionization. The emulsion chamber used in this case consisted of 126 emulsion layers of 450  $\mu$  thickness each. The chamber was exposed in the stratosphere for a period of 7 hours. When looking through it was observed that light negative mesons got stuck, and those stars were selected which contained at least one secondary charged particle. Furthermore, the true length of the traces of all secondary particles was measured and, if necessary, followed from layer to layer. When looking through, in particular those  $\sigma$ -stars were investigated from the center of which traces of slow electrons could be followed. Such electrons are essentially connected with the mesoatomic stage of the capture of a negative pion, and they are usually created on the occasion of the capture of a negative pion by the heavy nuclei of the photo-emulsion (Ag and Br). The traces of the very slow electrons take the form of thickenings, and the  $\sigma$ -stars corresponding to them were brought into connection with the spallation of Ag- and Br-nuclei.

✓  
Zurn.eksp.i teor.fis, 31, fasc.5, 756-761 (1956) CARD 2 / 2

PA - 1769

Three tables illustrate the distribution (over the number of rays) of the  $\sigma$ -stars, of  $\sigma$ -stars without slow electrons and "thickenings", of  $\sigma$ -stars with slow electrons and thickenings. On the occasion of the capture of negative pions by heavy nuclei,  $\sigma$ -stars are often produced which have few rays. Further tables contain data concerning the number of secondary particles with different energies which belong to the stars with different numbers of rays. The number of  $\sigma$ -stars with secondary particles of more than 30 MeV amounts to 20,1 ± 1,3%. The percentage of stars with secondary particles with  $E \gg 30$  MeV is nearly the same both in the case of heavy and light nuclei. Also the average values of energy which were computed for particles with  $E \gg 30$  MeV are in all cases nearly equal. It is interesting to compare the energy spectra obtained here with the data for the  $K^-$ -mesons which were produced by  $\sigma$ -stars. On the average the stars originating from  $K^-$ -mesons have secondary particles with higher energy (and this more often) than the stars originating from negative pions. Among the stars originating from  $K^-$ -mesons (which contain no traces of pions) from 65,4 ± 10,0% have secondary particles with more than  $E \gg 30$  MeV. The average value of energy computed for such particles is  $79,2 \pm 8,5$  MeV.

INSTITUTION: Physical Institute "P.N.LEBEDEV" of the Academy of Science in the USSR.  
Academy of Science of the Uzbekian SSR.

Z. A. Mchedlov, E. A.

Distr: 483d

3101

INVESTIGATION OF  $\pi$  STARS INDUCED BY NEGATIVE  $\pi^-$

ME: ORSI, S. A. Azimov, U. G. Gulliamov, E. A. Zancha-

lev, M. Nizametdinova, M. I. Podgoretskii, and A. Iuldashev

(Academy of Sciences, USSR and Academy of Sciences,

Uzbek SSR). Soviet Phys. JETP 6, 632-6 (1957) June.

The properties of  $\pi$ -stars produced by  $\pi^-$  mesons stopping in a  $\text{CH}_2$  target were investigated. Data obtained from the analysis of 533  $\pi$ -stars were used to determine the distribution of the number of prongs as well as the energy distribution of secondary particles. The obtained energy spectrum is compared to the data on  $\pi$ -stars produced

10  
1 RMY

ZAMCHALOVA, YE. A.

56-4-43/52

AUTHOR:

TITLE:

PERIODICAL:

ABSTRACT:

GRAMENITSKIY, I.M., ZHDANOV, G.B., ZAMCHALOVA, YE.A., SHCHERBAKOVA, M.N.  
Nuclear Interaction in a Photoemulsion at an Energy of  $8.10^{13}$  eV.  
(Yadernoye vzaimodeystviye v fotoemulsii pri energii  $8.10^{13}$  eV.  
Russian).  
Zhurnal Eksperim. i Teoret. fiziki, 1957, Vol 32, Nr 4, pp 936-938  
(U.S.S.R.)

In a stack of baseless 600  $\mu$  thick photoemulsion of the type ILFORD G5 (which in 1955 was exposed to light for 6 hours in the Po Valley (?) at a height of 25,5 km) a nuclear interaction of the type  $1 + 37 \alpha$  was discovered. The angular distribution of secondary charged particles was measured, on which occasion the small angles  $\theta$  were calculated from the center of the axial symmetry of the narrow cone of the particle. In order to be able to obtain the angular distribution of the penetrating particles immediately in the center of mass system of the colliding particles, the order  $\ln \tg \theta$  was chosen as the angular variable. The differential angular distribution obtained after averaging over three independent measurements is represented in a diagram. The necessary condition for the determinability of the primary energy (resulting) from the angular distribution is the symmetry of this distribution in the center of mass system with respect to the angle  $\theta = \pi/2$ . An examination of the angular distribution found here by means of the so-called  $\chi^2$ -test confirms the symmetry of this

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56-4-43/52

Nuclear Interaction in a Photoemulsion at an Energy of  $8 \cdot 10^{13}$  eV.  
distribution with 90% accuracy.

Starting from the symmetry of the angular distribution, the authors obtained some, partly independent, possibilities of determination of the energy  $E_0$  from the values of  $\ln \tg \theta$  for each pair of particles which are symmetric with respect to the angle  $\theta_{1/2}$ .

Thus, they obtained for the energy of the primary particle in the center of mass system ( $E_0$ ) and in the laboratory system the following values:

$$E_0 = (200^{+5}_{-4}) \text{ Mo}^2, \quad E_0 = (8^{+4}_{-3}) \cdot 10^{13} \text{ eV per nucleon.}$$

With a total length of path of 110 cm of the secondary particles in the photoemulsion three cases of secondary interactions were observed; their characteristics are shown together in a table. A further indirect method for the approximation-like measurement of the transversal momenta of the shower particles is the determination of the energies and the directions of flight of those photons which occur on the occasion of the decay of the neutral pions. The values of the transversal momenta measured by means of two independent methods sufficiently agree with one another and furnish

Card 2/3

56-4-43/52  
Nuclear Interaction in a Photoemulsion at an Energy of  $8 \cdot 10^{13}$  eV.  
the average value  $\bar{p}_1 \approx 2 \mu$  and a scattering of  $\Delta p_1 \sim \bar{p}_1$  around  
the average value. (1 illustration and 2 tables).

ASSOCIATION:

Physical Institute "P.N. LEBEDEV" of the Academy of Science of  
the U.S.S.R.

PRESENTED BY:

SUBMITTED:

AVAILABLE:

January 12, 1957  
Library of Congress

Card 3/3

56-34-4-9/60

AUTHORS: Zhdanov, G. B., Zamchalova, Ye. A., Tret'yakova, M. I.,  
Shcherbakova, M. N.

TITLE: The Nuclear Interaction in a Photoemulsion Accompanied by a  
High Energy Transfer to the Electron-Photon Component  
(Yadernoye vzaimodeystviye v fotoemul'sii, soprovozhdayu-  
shcheyesya vysokim vydeleniyem energii v elektronno-fotonnyu  
komponentu)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,  
Vol. 34, Nr 4, pp. 843 - 848 (USSR)

ABSTRACT: This work exactly investigates a case of a nuclear interaction  
in which at a primary energy of  $250 + 250$  BeV one of the  
neutral pions carries off an energy of  $\sim 125$  BeV. The authors  
developed a nuclear interaction of the type  $1 + 12 n$  with  
a very high proportion of the energy transferred to the elec-  
tron-photon component in a stack of supportless photoemulsions  
Ilford G-5 which was exposed at a height of 25,5 km during  
the Italian expedition by S. F. Powell (1955). The micro-  
projection of the shower and of the subsequent electron cas-  
cade are illustrated in a diagram. The angular distribution

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56-34-4-9/60

The Nuclear Interaction in a Photoemulsion Accompanied by a High Energy Transfer to the Electron-Photon Component

of the penetrating particles is almost isotropic in a system with the Lorentz factor  $\gamma_0 = 7$ . An estimate of the primary energy gives the value

$$E_0 = 250 \pm 250 \text{ BeV.}$$

This value, however, could be much lower, if the true angular distribution of the particles (in the center of mass system) differs fundamentally from a symmetrical distribution. The true value of  $E_0$  seems to be hardly higher than 800 BeV. A table illustrates the distributions of the particles in the plane vertical to the cascade axis, found by the authors at three depths of the cascade shower ( $t = 1, 6; 3, 1$  and  $4, 5$  avalanche units). The spatial and energetic distributions of the electrons and of the pairs illustrated in 2 tables, allow an estimate of the total energy of the soft component, for which 4 methods can be used. The values thus obtained are composed in a table. Into the soft component at least 30 % of the total interaction energy are transferred. Also of interest is the considerably sharper concentration of the photons with high energy near the shower axis compared with the angular distribution of the penetrating particles.

Card 2/3

The Nuclear Interaction in a Photoemulsion Accompanied by a High Energy  
Transfer to the Electron-Photon Component 56-34-4-9/60

The authors thank R. M. Grysunov, L. V. Kruglov, M. N. Pachkov  
and Yu. F. Sharapov for their participation in the evaluation  
of the experimental data, and Professor N. A. Dobrotin and  
I. L. Rozental' for the discussion of the obtained results.  
There are 2 figures, 4 tables, and 6 references, 4 of which  
are Soviet.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR  
(Physics Institute imeni P. N. Lebedev AS USSR)

SUBMITTED: November 26, 1957

1. Nuclear reactions--Analysis

Card 3/3

3/560/62/000/012/001/014  
 IO46/I246

**AUTHORS:** Alekseyeva, K.I., Gabuniya, L.L., Zhdanov, G.B., Zamchalova, Ye.A.,  
 Shcherbakova, M.M. and Tret'yakova, K.I.

**TITLE:** Investigation of the primary cosmic radiation composition at an  
 altitude of 320 km

**SOURCE:** Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli, no. 12, Moscow,  
 1962, 6-15

**TEXT:** The automatic apparatus whose design was reported at the International Conference  
 on Nuclear Photography (1960) is applied to impulse and ionization measurements of  
 middle-weight cosmic nuclei. In multiple scattering measurements, the time required to  
 measure one 10 mm trail in 7 minutes; in ionization measurements, 30 minutes per trail  
 are required. This is at least 5 times as fast as in visual measurements. The resolution  
 of the apparatus in ordinary circumstances is sufficient to separate between the Li, Be,  
 B and C, N, O groups. Instrumental errors, however, reduce the accuracy of measuring  
 trail discontinuities by up to 30-40% as compared with visual measurements for a given  
 Card 1/2

Investigation of the primary cosmic radiation...

trail length. There are 10 figures and 1 table.

SUBMITTED: August 15, 1961

Card 2/2

ALEKSEYEVA, K.I.; ZHDANOV, G.B.; ZAMCHALOVA, Ye.A.; TRET'YAKOVA, M.I.;  
SHCHERBAKOVA, M.N.

Study by the photographic emulsion method of the interaction  
between 8.7 Bev protons and quasi-free nucleons. Zhur. eksp.  
i teor. fiz. 40 no.6:1625-1637 Je '61. (MIRA 14:8)

1. Fizicheskiy institut im. P.N. Lebedeva AN SSSR.  
(Photography, Particle track)  
(Protons)  
(Nucleons)

ZAMCHALOVA, YE.V., SHCHERBAKOVA, M.I., TRETYAKOVA, M.I. ALEKSEVEVA, M.I.,  
GABUNIYA, L.L., and ZHDANOV, G.E.

"Study of Composition of Primary Cosmic Radiation at an  
Altitude of 320 Kilometers,"

report presented at the Intl. Conference on Cosmic Rays and  
Earth Storms, Kyoto, Japan, 4-15 Sept 1961.

ZAMCHIYA, N.A.

Semiautomatic device for controlling the charging of bunkers with  
press-powder. Suggested by N.A.Zamchiia. Rats.1 izobr.predl.v  
stroil. no.16:70-72 '60.  
(MIRA 13:9)

1. Nachal'nik elektrotsekha Flitchnogo zavoda Khar'kovskogo  
sovnarkhoza, Khar'kov, stnatsiya Losevo, prospekt Stalina, d.294.  
(Files)

ZAMECHNIK, F.F.; BYKOV, P.A.

Core composition with a low crude strength. Biul. tekhn.-ekon.  
inform. Gos. nauch.-issl. inst. nauch. i tekhn. inform. 17  
no.12:9-11 E '64. (MIRA 18:3)



SKAVRONSKAYA, A.G.; FRADKIN, G.Ye.; BORISOVA, N.B.; ZAMCHUK, L.A.;  
GOL'DINA, L.R.

Influence of the intensity of nucleic acid and protein  
synthesis on lethal and mutagenetic effects of  $\gamma$ -irradia-  
tion. Radiobiologiya 3 no.4:582-586 '63. (MIRA 17:2)

1. Institut epidemiologii i mikrobiologii im. akad. N.F.  
Gamaleya AMN SSSR, Moskva.

TIMAKOV, V.D.; SKAVRONSKAYA, A.G.; BORISOVA, M.B.; ZAMCHUK, L.A.

Antigenic properties of deoxyribonucleic acid in *Salmonella*  
*typhimurium* No.70. Zhur. mikrobiol., epid. i immun. 40 no.1:  
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1. Iz instituta epidemiologii i mikrobiologii imeni Gamalei  
AMN SSSR.

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AUTHOR: Skavronskaya, A. G.; Fradkin, G. Ye.; Borisova, N. B.; Zauchuk, L. A.;  
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TITLE: Influence of the intensity of synthesis of nucleic acids and albumin on the lethal and mutagenic effects of gamma radiation

SOURCE: Radiobiologiya, v. 3, no. 4, 1963, 582-586

TOPIC TAGS: gamma radiation, nucleic acid, albumin, mutagenesis, synthetic process intensity, radiation, DNA, RNA

ABSTRACT: The influence of the intensity of synthesis of nucleic acids and albumin on the lethal and mutagenic effects of gamma radiation was examined by reproducing the process of mutability and varying the intensity of the synthetic processes. In this way the role of individual cell components in determining and changing the hereditary traits of microorganisms was examined. Experiments were conducted with *E. coli* B cultures in a glucose salt "minimal" medium, using a Co<sup>60</sup> gamma-ray source. Levomycetin was used to vary the intensity of the synthetic processes in the cell. It was found that the lethal and mutagenic

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effects of radiation increase under the action of gamma rays against a background of an almost complete block of albumin synthesis and of retarded nucleic acid synthesis. Irradiation of the culture under conditions of retarded albumin synthesis and negligibly stimulated DNA and RNA synthesis leads to some lessening of these effects. The presence of a correlative relationship between the intensity of DNA and RNA synthesis, on the one hand, and mutagenic and lethal action of gamma irradiation, on the other, confirms the genetic role of nucleic acids and attests to the dynamic character of the functioning of the cellular genetic structures. Orig. art. has: 1 figure and 2 tables.

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SKAVRONSKAYA, A.G.; FRADKIN, G.Ye.; BORISOVA, N.B.; ZAMCHUK, L.A.

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N.F.Gamalei, Moskva.

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Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza imeni akad.  
F. G. Yanovskogo (dir. - dots. A.S. Mamolat) i Ternopol'skogo, Vimitsko-  
go, Chernigovskogo, Kiyevskogo, Chernovitskogo i Stanislavskogo oblast-  
nykh protivotuberkuleznykh dispanserov.

(TUBERCULOSIS, MENINGEAL, in inf. & child  
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Mamolat) i Chernigorvskogo oblastnogo protivotuberkuleznogo  
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